

In re application of  
Heinemann et al.  
Application No.: 09/580,462  
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Atty. Dkt. No.: SALK1590-3 (088802-2454)

### REMARKS

In accordance with the present invention, there are provided nucleic acids encoding neuronal nicotinic acetylcholine receptor subunits and proteins encoded thereby. In particular, the invention relates to a family of novel mammalian neuronal nicotinic acetylcholine receptor subunits, for example, the beta2 subunit, which is a non-agonist binding subunit. Invention nucleic acids and the protein encoded thereby can be used for a variety of applications, e.g., for drug design and screening. Moreover, transformed cell lines expressing specific receptor subunits can be produced in quantity for reproducible quantitative analysis of the effects of drugs on receptor functions.

Claims 34 and 38-44 are cancelled by this communication in efforts to reduce the issues and further prosecution.

It is respectfully submitted that entry of the amendments submitted herewith is proper because these amendments place the present application in condition for allowance or at a minimum, in better condition for appeal. It is further submitted that, upon entry of this amendment, fewer claims will be under consideration, claims 34 and 38-44 having been cancelled herein. Accordingly, entry of the amendments submitted herewith is respectfully requested.

After canceling the claims as set forth above, claims 7, 35-37, and 45-48 are now pending in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether a particular claim remains under examination in the application, is presented, beginning on page 2 of this paper under "Listing of Claims," with an appropriate defined status identifier.

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**CONCLUSION**

In view of the above amendments and remarks, the present application is respectfully submitted to be in condition for allowance. Accordingly, reconsideration and favorable action with respect to the pending claims is respectfully requested. In the event any issues remain to be resolved in view of this communication, the Examiner is invited to contact the undersigned at the number given below so that a prompt disposition of this application can be achieved.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

Date: April 8, 2005

By 

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